REMARKS/ARGUMENTS

Claims 1–19 are pending in the captioned application. Claims 2–4 and 14–19 were withdrawn from consideration, hence claims 1 and 5–13 are currently presented for examination. Claim 13 has been amended as described below. Applicants respectfully assert that this amendment is fairly based on the specification and respectfully request its entry.

Applicants gratefully acknowledge the Examiner's granting of the request for continuing examination under 37 C.F.R. § 1.114 and entry of the amendment filed March 11, 2005. Applicants also gratefully acknowledge the withdrawal of grounds for rejection raised in the previous Office Action.

The Examiner has rejected claim 13 under 35 U.S.C. § 112, second paragraph, as "being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention".

Specifically, the Examiner states, "Claim 13 is ambiguous in reciting, 'cellular process is performed in real time using non-invasive technique' because it is unclear how cellular process such as metabolism and death can be *performed* in real time using non-invasive technique. Does Applicant intend, 'wherein said detection of cellular process can be performed in real time using non-invasive technique'".

In response, Applicants have amended claim 13 to read, "**said measurement of** said cellular process" (emphasis added). Applicants respectfully assert that this amendment removes the ambiguity.

In view of the foregoing, Applicants respectfully assert the Examiner's rejections cannot be sustained and should be withdrawn.

The Examiner has rejected claims 1 and 5–13 under 35 U.S.C. § 103(a) as "being unpatentable over Jessop (US Patent 6,524,786 B1) in view of Clapper et al. (US Patent 5,512,474)".

Specifically, the Examiner states, "Jessop discloses scintillation proximity assays performed in multiwell plates wherein a charge-coupled device (CCD) is used in a detection step to image cellular processes in living and growing (proliferating) cells...Jessop teaches providing one or more different populations of living, growing, and adherent cells which are attached to support particles (particulates or beads) and carrying a scintillant substance (phosphor). In practice, Jessop teaches introducing the adherent cells attached to scintillant particles in a medium, to massive surfaces such as separate vessels or wells of a microtiter plate...Thereafter, radioisotope-labeled reagent is added to the wells so as to monitor uptake (association) of the radioisotope by the growing culture cells in real time or dynamic mode. The radioisotopes include ^{3}H, ^{125}I, ^{14}C, ^{35}S,

^{56}Ca, ^{33}P, ^{32}P, ^{55}Fe, ^{86}Rb, ^{109}Cd, and ^{51}Cr...In Example 9, Jessop monitors uptake of ^{14}C thymidine in growing (proliferating) cells seeded on the surface of a microwell plate in a thymidine uptake assay. Cellular processes are measured by detecting light emission from the scintillant support particles as caused by the radioactive decay of the radioisotope label...The cellular processes tested include receptor binding assay, uptake, and biochemical response. Different concentrations of radioisotope label are incubated with different samples of cells in reaction vessels...Jessop provides that detection step may be performed by scintillation counting..."

The Examiner concedes, "Jessop differs from the instant invention in failing to teach that the scintillant support particles are adapted to support cell growth", but asserts, "Clapper et al. disclose cell culture support particles which may be in the form of porous beads. Clapper et al. specifically teach combining a cell adhesion factor and a positively charged molecule such as polylysine or chitosan, for binding into the surface of the cell culture support particle to enable cell attachment and support or stabilize cell growth....Clapper et al. teach application of the cell culture support particles in scintillation vial assays and in quantitation of radiolabeled proteins immobilized into the cell culture support particles..."

The Examiner continues, "It would have been obvious to one of ordinary skill in the art at the time of the instant invention to incorporate a cell adhesion factor and a positively charged molecule such as polylysine or chitosan as taught by Clapper, for

binding into the surface of the scintillant support particle in the method taught by Jessop in order to enable not only cell adherence, but also to support cell growth in the scintillant support particles because Clapper specifically showed applicability of the cell culture support particles in the field of scintillation assays and radioimmunoassay".

The Examiner concludes, "One of ordinary skill in the art at the time of the instant invention would have been motivated to incorporate cell culture support as taught by Clapper into the method of measuring cellular processes as taught by Jessop because by supporting a cell growth capability in scintillant support particles, convenient and appropriate environmental conditions can be better controlled or altered for purposes of assaying for and measuring cellular processes as in the method taught by Jessop".

In response, Applicants respectfully disagree and assert that the disclosures of the Clapper, et al. and Jessop patents are so different as to not be combinable. More specifically, as the Examiner correctly characterizes the Jessop patent teaches scintillation proximity assay tests, but does not teach such tests where the support particles, which include the scintillant substance, are adapted for cell growth. Indeed, this is the distinction that was previously raised by Applicants to the Examiner's 102 rejection over the Jessop patent. The Clapper, et al. patent, on the other hand, discloses that cells can be cultured on surfaces of cell supports when a certain combination of reagents is added to facilitate the binding and growth on the support. However, notwithstanding the Examiner's contention that scintillation assays are taught at pages

14–15, the Clapper, et al. reference neither discloses nor even suggests that the supports contain scintillant particles. Indeed, what the section cited by the Examiner teaches is that such cells can be attached to the surface of liquid scintillation vials (col. 14) but it neither discloses nor even suggests that the cells can be drawn on particles containing scintillants or, indeed, that scintillants are in the presence of such growing cells whatsoever.

Thus, Applicants respectfully assert that it is improper for the Examiner to combine the teachings of Clapper, et al. with those of Jessop, as there is no motivation to grow cells on the surface of supports containing scintillants. While Applicants concede that it could be obvious to try to see if such growth could be maintained, Applicants also respectfully assert that such is not the proper basis upon which to promulgate and obviousness rejection. Indeed, the only reference which teaches growing cells on the surface of a solid support containing the scintillant is the Applicants' own reference, and Applicants respectfully submit that it is improper to try to use Applicants' own teachings as part of the rejection.

Absent these teachings, Applicants respectfully assert that there is no absolutely no motivation provided by the references to arrive at the instant invention.

In view of the foregoing, Applicants respectfully assert the Examiner's rejections cannot be sustained and should be withdrawn.

In view of the foregoing, Applicants respectfully assert the Examiner's rejections cannot be sustained and should be withdrawn. Applicants believe that the claims, as amended, are in allowable form and earnestly solicit the allowance of claims 1 and 5–13.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on August 31, 2005.

Signature:

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